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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,193	02/19/2004	Hyo-Sun Hwang	12000.SMG.0008	4103
869860 7590 04/23/2010 North Star Intellectual Property Law, PC P.O. Box 34688 Washington, DC 20043			EXAMINER MOUTAOUAKIL, MOUNIR	
			ART UNIT 2476	PAPER NUMBER
			MAIL DATE 04/23/2010	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/782,193

Applicant(s)

HWANG ET AL.

Examiner

MOUNIR MOUTAOUKIL

Art Unit

2476

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6, 8-11, 13-15, 20 and 23-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6, 8-11, 13-15, 20 and 23-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to argument

The amendment filed on 02-02-2010 has been entered and considered.

Claims 6, 8-11, 13-15, 20, and 23-27 are pending in this application.

Claims 1-5, 7, 12, 16-19, and 21-22 are cancelled.

Claims 6, 8-11, 13-15, 20, and 23-27 remain rejected as discussed below.

Claim Rejections - 35 USC § 103

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6, 9-11, 14, 15, 20 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ketcham (US 6,721,334) in view of O'Mahony et al (US 2004/0018016). Hereinafter referred to as O'Mahony.

Regarding claims 6, 11, 20 and 26-27. Ketcham discloses an apparatus for generating an aggregation packet in a communication system (see figs 3 and 4, and col.2, lines 46-55). the apparatus comprises: a buffer manager for storing a plurality of data packets (fig.3 and 4. routers 308-312) and receiving QOS information associated with each packet (it is inherent that IP packets include a QOS section); and an aggregation module for receiving the plurality of data packets from the buffer manager and aggregating at least two data packets having a same destination address among the plurality of received data packets to form a single aggregated packet (see figs 3 and 4, and col.2, lines 46-55. Routers 308 receives packets and aggregates them as long as they have the same destination), wherein a header of each of the at least two data packets includes length information and a destination address (see figs 3 and 4, and col.2, lines 46-55 and col.2 line 60- col.3, line 6, see col.7, lines 43-52. The system uses IP packet which must have and header length and destination address sections within), and a header of the aggregated packet includes a destination address which is identical to the destination address included in the header of the at least two data packets (see

figs 3 and 4, and col.2, lines 46-55, the aggregated packet includes the same destination as of the combined packets because the system requires that the combined packets must have the same address).

Ketcham discloses all the limitations of the claimed invention with the exception that the two data packets further have the same QOS parameters. However, O'Mahony, from the same field of endeavor, teaches a packet combining system where packets are to be combined based on destination and QOS parameters (see paragraph [0040]).

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine packets based on destination and QOS parameters, as taught by O'Mahony, for the purpose of maintaining quality of service and using channels capacity wisely.

Regarding claims 9, 10, 14, 15 and 24-25. Ketcham view of O'Mahony discloses a method wherein the header of the aggregation packet further includes the length information of each of the at least two packets (see col.3 lines 1-5).

6. Claims 8, 13 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ketcham in View O'Mahony and further in view of the APA (admitted prior art) of the current application.

Regarding claims 8, 13 and 23. Ketcham view of O'Mahony discloses all the limitations of the claimed invention with the exception that the aggregated packet includes a data section corresponding to each of the at least two data packets. However, APA discloses the possibility of including a data section that corresponds to each of the data packets in the aggregated packet (Fig.2). Thus, it would have been

obvious to a person of ordinary skill in the art at the time of the invention to include a section of each data packet within the aggregated packet, as taught by APA, of Ketcham view of O'Mahony for the purpose of organizing the aggregated packet and using the communication bandwidth efficiently.

Response to Arguments

5. Applicant's arguments with respect to claims 6, 8-11, 13-15, 20, and 23-27 have been considered but they are not persuasive.
6. Applicants' representative contends that the prior art, O'Mahony, of record fails to teach the limitations of "aggregating at least two data packets having a same destination and **identical** quality of service information...".
7. Examiner respectfully disagrees, the prior art of record clearly states "the packets are aggregated based on destination and QOS parameters", which means that they have to be the same destination and same QOS. Otherwise, it would be a waste of resources and extended delay in the network to aggregate packets with different QOS of service. For instance, it would make no sense to aggregate time sensitive packets with least priority packets. Moreover, the prior art of record does not have to state that the QOS has to be identical as the person of ordinary skill in the art would know/recognize that it has to be the same otherwise useless. Therefore, the prior art of record overcomes the claim limitation and the rejection is appropriate.

In response to applicant's argument that the prior art is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant

was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both prior arts of record are directed to packet routing using the method of aggregation. Moreover, the primary art already discloses all the limitations of the claimed invention with the exception of one condition to satisfy the aggregation, which is the identical QOS. Therefore, it would have been obvious to a person of ordinary skill in the art to add such a restriction/condition as it is taught by other arts, such as O'Mahony, to further enhance the network of Ketcham. A person of ordinary skill in the art would know how to add such a restriction/condition to Ketcham's packet network without the need to change the network.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of. The art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

When responding to this office action, applicants are advised to clearly point out the patentable novelty which they think the claims present in view of the state of the art disclosed by the references cited or the objections made. Applicants must also show how the amendments avoid such references or objections. See 37C.F.R 1.111(c). In addition, applicants are advised to provide the examiner with the line numbers and pages numbers in the application and/or references cited to assist examiner in locating the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOUNIR MOUTAOUKIL whose telephone number is (571)270-1416. The examiner can normally be reached on Monday-Thursday (1pm-4:30pm) eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-37953795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. M./
Examiner, Art Unit 2476

/Ayaz R. Sheikh/
Supervisory Patent Examiner, Art
Unit 2476